

DoD Space Planning Criteria for Health Facilities

Cardiology/Pulmonary Services

FUNCTION	Room Code	AUTHORIZED		PLANNING RANGE/COMMENTS
		m ²	nsf	

3.16.1. PURPOSE AND SCOPE:

This section provides guidance for the space planning criteria for the cardiology/pulmonary activities in DoD medical facilities. These services are typically for inpatients and outpatients.

3.16.2. DEFINITIONS:

Cardiology: The study of the heart and its functions.

Full-Time Equivalent (FTE): A work force equivalent to one individual working full time for a specific period, which may be made up of several part-time individuals or one full-time individual. This will include everyone working in the facility; military, civilian and contractor personnel.

Office: Room Code OFA01 is a private office outfitted with standard office furniture. Room Code OFA02 is a private office outfitted with systems furniture. Room Code OFA03 is a cubicle outfitted with systems furniture.

Pulmonology: The science concerned with the anatomy, physiology, and the pathology of the lungs.

Provider: A “provider” in a cardiology/pulmonary service is an individual, who examines, diagnoses, treats, prescribes medication and manages the care of patients within his or her scope of practice as established by the governing body of a healthcare organization. Providers are pulmonologists, cardiologists, respiratory therapists, physicians, physician's assistants and clinical nurse practitioners.

Rotating Resident: A rotating resident is one from any graduate medical education specialty program (internal medicine, pediatrics, surgery, family practice, etc.) who, in the course of his or her education, must spend time in the services of another specialty. For example internal medicine residents are required to “do a rotation” in the cardiology/pulmonary service.

Preceptor/ Consult Room: A location is required for residents in training to be able to discuss cases in private with supervising faculty physicians (preceptors). These discussions occur during the course of a patient visit, requiring proximity to exam room areas. In clinic configurations with staff physician offices clustered near exam rooms, precepting may be feasible from the faculty physician's own office and not from a dedicated central preceptor room. Note that any space provided for precepting must afford privacy from eavesdropping patients and passers-by ... hence an open area accessible by non-staff is NOT acceptable.”

3.16.3. POLICIES:

Clinic Composition: A separate cardiology/pulmonary clinic will not be programmed if the number of provider FTEs is 2 or less. When staffing does not support a separate clinic, the service may be combined with internal medicine. Cardiology and pulmonary clinics may be separate clinics at larger facilities.

Providers' Examination Rooms: Each provider will be provided with two examination rooms.

Providers' Offices: Each provider on the staff, who has patient appointments, will be provided a private office.

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Residents' Office Space: Private office space will not be programmed for graduate medical education residents. Residents, who are in a graduate medical education program studying to become a specialist in the service being programmed, will be provided with shared office space of 60 nsf per resident in the program. An office for a rotating resident may be programmed in the clinic for residents who see patients.

Resident's Office/Examination Rooms: Additional office and examination room space may be programmed into a clinic to provide space for "rotating residents" to see patients. A resident during his or her rotation in the clinic will use this space when seeing patients as walk-ins or by appointment. One office and two examination rooms may be programmed for each resident FTE projected to be in the clinic seeing patients. Note: These residents are not necessarily cardiologist residents only; family practice and internal medicine residents may require a rotation in the cardiology/pulmonary clinic.

3.16.4. PROGRAM DATA REQUIRED:

- How many FTE providers are projected?
- How many nurse managers are projected?
- How many FTE nursing staff are projected?
- How many NCOIC/LCPO/LPO/SMT are projected?
- How many officers or officer equivalents are projected?
- How many staff will require a private office?
- How many staff will require a cubicle?
- How many staff will require a locker?
- How many FTEs on peak shift are projected?
- Will there be a Residency Program?
 - Will there be a Residency Program Director?
 - Will there be a Residency Program Secretary?
- How many Residents are projected?
- How many Residency Staff require a private administrative office?
- How many Residency Administrative Staff cubicles are required?

NOTE: GP indicates that a guideplate exists for that particular Room Code.

3.16.5 SPACE CRITERIA:

RECEPTION AREAS				
Clinic Waiting	WRC01	5.57	60	Minimum. Provide five seats per provider for the maximum number of providers projected to be working in the clinic at one time. Provide 16 nsf for 95% of the seats and 25 nsf for 5% of the seats (handicapped waiting).
Reception (GP)	RECP1	13.01	140	Provide 140 nsf for the first eight providers. Increase 60 nsf for each increment of four providers over the initial eight providers
Patient Education Area	CLSC1	3.72	40	Kiosk/Alcove. Provide either CLSC1 or CLSC2 per clinic.
	CLSC2			Cubicle. One per clinic. Provide either CLSC1 or CLSC2 per clinic.
Public Toilet	NA	NA	NA	Space will be provided in the Common Areas. See Section 6.1

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CARDIOLOGY CLINIC

Cardiology and pulmonary clinics may be separate clinics at larger facilities. Must have a minimum of two FTE cardiologists projected.

PATIENT AREAS – CARDIOLOGY CLINIC

Adult Screening Room (GP)	EXRG4	7.43	80	One per every four providers.
Pediatric Screening Room	EXRG5	7.43	80	One per clinic.
Patient Education Room	LIBV1	11.15	120	One per clinic.
Cardiology Exam Rooms (GP)	EXRG1	11.15	120	Army - Two per projected FTE. (Also note resident examination rooms.)
	EXRG2			Navy. (See above planning range comments.)
	EXRG3			Air Force/VA. (See above planning range comments.)
EKG Testing (GP)	OPEC1	11.15	120	Minimum. Total number of rooms may be more. See formula in Section 3.16.6.
EKG Work Area and Records	OPEC2	11.15	120	Minimum. One per clinic, add 10 nsf for each EKG room in excess of one.
Stress Echocardiograph Room	OPPE2	18.58	200	One per Cardiology clinic, if required
Echocardiograph Room	OPPE1	13.01	140	One room per every 1000 echoes performed annually.
Echocardiograph Reading Room, 2 station (GP)	XVC02	11.15	120	??????????? One room per every two echocardiograph rooms.
Echocardiograph Records Storage Room	MRS01	9.29	100	One per clinic. Provide an additional 40 nsf if records are not maintained on CD or video format.
Transesophageal Echocardiograph. Room	OPPE1	20.44	220	One per clinic if in clinic concept of operations. May collocate with Cardiac Cath. Area.
Recovery Area (GP)	RRSS3	11.15	120	One per transesophageal echo. room.
Scope Wash Room (GP)	USCL2	9.29	100	One per transesophageal echo. room.
Ultrasound (GP)	XDUS1	15.33	165	One, if in clinic concept of operations and if qualified technician or qualified physician (FTE) projected.
Tilt Table Testing (GP)	OPTM2	11.15	120	One per clinic.
Pacemaker, ICD Interrogation	OPPM1	11.15	120	One per clinic.
Pacemaker Equipment Storage	SRE01	5.57	60	One per pacemaker room.
Treadmill (GP)	OPTM1	20.44	220	Minimum of one per Cardiology clinic when cardiologist is programmed. Provide second room when more than 1,000 echoes performed annually.
Toilet with Shower	TLTS2	6.50	70	One per two diagnostic rooms (treadmill or echo).
Dressing Room/Cubicle (GP)	DR001	4.65	50	Minimum per cubicle. One cubicle per Phonocardio, one per Echocardiography Room, and one per Treadmill room.

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PATIENT AREAS – CARDIOLOGY CLINIC Continued

Holter Monitor Room	OPHM1	11.15	120	One per Cardiology clinic if FTE cardiologist is projected.
Holter Monitor Equipment Room	SRE01	9.29	100	One per Holter Monitor Room.
Patient Toilet (GP)	TLTU1	4.65	50	One if number of projected FTE providers is between three and eight. Provide two toilets if number of projected FTE providers is between nine and fifteen. Provide three toilets if number of projected FTE providers is sixteen or more with a maximum of three toilets.

CARDIAC CATHETERIZATION (CATH) LAB Must have a minimum of one cardiologist FTE projected, can be located in Radiology Department.

X-ray, Cardiac Cath Exposure (GP)	XCCE1	54.81	590	Per room authorized.
Patient Prep/Recovery Cubicle (GP)	ORPP1	11.15	120	Two per Cardiac Cath room.
Nurse Station, Minimal	OFA01	5.57	60	Minimum if four or less beds
Nurse Station (GP)	NSTA4	11.15	120	If greater than four beds
Scrub Area (GP)	ORSA1	5.57	70	For two scrub sinks
Control Room (GP)	XCCC1	22.30	240	Minimum. Add 80 nsf per exposure room over one.
Viewing Room	XVC01	9.29	100	One per two exposure rooms
Equipment Storage	SRS01	12.54	135	Minimum one per two exposure rooms
Sterile Supply	ORCW1	9.29	100	One per two exposure rooms
Cardiac Cath Instrument Room	XCCI1	9.29	100	One per exposure room
Cardiac Cath System Component Room (GP)	XCCA1	12.54	135	One room for two exposure rooms.
Equipment Cleanup	ORDA1	7.43	80	Minimum, One per two cardiac catheterization rooms

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PULMONARY CLINIC

Cardiology and pulmonary clinics may be separate clinics at larger facilities. Must have a minimum of one pulmonologist FTE projected. Provide with respiratory therapist FTEs projected.

PULMONARY FUNCTION LAB

Screening Room(GP)	OPPS1	11.15	120	One per pulmonary function lab.
Pulmonary Function Lab	OPPF1	11.15	120	One per lab.
Pulmonary Function Analyzer Room	OPPF4	11.15	120	One per lab. Includes a Body Box.
Respiratory Inhalation Cubicle (GP)	OPRT1	6.97	75	Minimum of two cubicles per clinic.. See formula in Section 3.16.6. below.
Respiratory Cleaning Room	OPRC1	13.94	150	Minimum; plus 10 nsf per treatment cubicle. Maximum: 200. One per clinic.
Treadmill Room	OPPF5	23.23	250	One per pulmonary function lab.
Equipment Storage	SRE01	9.29	100	Per cubicle. One per respiratory treatment area.
Gas Cylinders Storage	SRGC2	2.78	30	One per clinic.
Ventilator Storage	SRE01	9.29	100	Minimum of 10 nsf per ventilator.
Equipment Storage	SRE01	13.94	150	Minimum; plus 10 nsf per treatment cubicle.

SLEEP STUDIES SUITE

Verify if required.

Sleep Studies Room	OPPF6	13.01	140	One per FTE pulmonologist.
Monitoring Room	OPEE2	11.15	120	One per sleep studies suite. For equipment.
Sleep Studies Toilet (GP)	TLTU1	4.65	50	One per sleep studies room. See Section 6.1.

BRONCHOSCOPY SUITE

Verify if procedures performed in OR. Do not locate in both areas.

Bronchoscopy Procedure Room	TRPE2	13.94	150	One per clinic if FTE pulmonologist. projected.
Recovery Room (GP)	RRSS3	11.15	120	One per suite.
Recovery Room Toilet (GP)	TLTU1	4.65	50	One per suite.
Control/Observation Area	OFA03	5.57	60	One per suite. (System Furniture, cubicle)
Scope Wash Room (GP)	USCL2	9.29	100	One per suite.

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STAFF AND ADMINISTRATIVE AREAS

Provider Office (GP)	OFD01	11.15	120	Army - One per projected FTE cardiologist/pulmonologist. (See also Residency Program Section.)
	OFD02			Navy - One per projected FTE cardiologist/pulmonologist. (See also Residency Program Section.)
	OFD03			Air Force/VA - One per projected FTE cardiologist/pulmonologist. (See also Residency Program Section.)
Nurse Manager Office	OFA01	11.15	120	Private office, Standard Furniture. One per FTE Nurse Manager.
	OFA02			Private office, System Furniture. One per Nurse Manager.
Home Care Coordinator Office	OFA01	11.15	120	One per projected FTE Home Care Coordinator.. Standard Furniture.
	OFA02			One per projected FTE Home Care Coordinator. System Furniture.
NCOIC/LCPO/LPO/SMT Office	OFA01	11.15	120	One per clinic. Standard Furniture.
	OFA02			One per clinic. System Furniture.
Private Office	OFA01	11.15	120	One per projected FTE requiring a private office. Refer to Section 2.1. Some examples are Group Practice Manager, Nurse Educator, Health Care Integrator, any staff who interviews or counsels patients.
	OFA02			
Respiratory Therapist Cubicle	OFA03	5.57	60	Per projected FTE, see Section 2.1. Provide 60 nsf for each FTE who requires office space.
Administrative Cubicle	OFA03	5.57	60	System Furniture cubicle. Per projected FTE, see Section 2.1. Provide 60 nsf for each full time person who requires office space.
Records Area	FILE1	5.57	60	Minimum. See Section 2.5 for increased sizing
Copy room	RPR01	9.29	100	For Copier/Fax/Mailbox distribution.
Forms/Literature Storage	SRS01	7.43	80	One per clinic
Conference Room (GP)	CRA01	23.23	250	Minimum use CRA01. One per department with less than eight officers or officer equivalents. For increase in size (CRA02 and CRA03) see Section 2.1.
	CRA02	27.87	300	
	CRA03	37.16	400	
Staff Lounge (GP)	SL001	13.01	140	Minimum. See Section 6.1.
Personal Property Lockers (GP)	LR001	1.86	20	For staff without a dedicated office/cubicle space. See Section 6.1 for increase in size or for Changing Locker Room criteria.
Staff Toilets (GP)	TLTU1	4.65	50	Minimum for total clinic staff of at least ten. See Section 6.1 for increase in size and for male/female breakdown.

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CLINIC SUPPORT AREAS

Clean Utility	UCCL1	9.29	100	Onr per clinic..
Soiled Utility (GP)	USCL1	8.36	90	For up to 6 projected FTE providers.
		11.15	120	For 7 - 12 projected FTE providers.
		13.94	150	For more than 12 projected FTE providers.
Litter/Wheelchair Storage	SRLW1	5.57	60	One per clinic.
Crash Cart Alcove	RCA01	1.86	20	One per clinic. Can be shared between several clinics if fully accessible to all.
Equipment Storage	SRE01	9.29	100	One per clinic.

Functions which are required for Residency Education in Cardio/Pulmonary:

The following areas must be programmed if there is a Cardiology or Pulmonary Residency Program. These areas are in addition to those listed under common areas above.

RESIDENCY PROGRAM

Residency Program Director (GP)	OFD01	11.15	120	Army - One per director of residency program.
	OFD02			Navy - One per director of residency program.
	OFD03			Air Force/VA - One per director of residency program.
Secretary with visitor waiting.	SEC01	11.15	120	One per Director of a Residency Program, if there is a projected FTE secretary position.
Private Office	OFA01	11.15	120	One per projected FTE that requires a private office
	OFA02			
Administrative Cubicle	OFA03	5.57	60	Provide 60 nsf per projected FTE position.
Resident Cubicle	OFA03	5.57	60	Minimum. 60 nsf per projected resident.
Residency Library	LIBB1	13.01	140	One per Residency Program.
Conference Room (GP)	CRA01	23.23	250	Minimum, one per Residency Program. For increased sizing see Section 2.1.
Resident Exam Room (GP)	EXRG1	11.15	120	Army. One per projected resident. Minus the two monitored exam rooms.
	EXRG2			Navy.
	EXRG3			Air Force/VA.

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RESIDENCY PROGRAM Continued

Monitored Exam Room – Subject & Observer Room (GP)	EXRG1	11.15	120	Army – provide two exam rooms per residency program, and one CMP02.
	EXRG2			Navy.
	EXRG3			Air Force/VA.
	CMP02			This room uses cameras and videotapes.
Preceptor/Consult Room (GP)	OFDC1	11.15	120	One per residency program.

3.16.6. FORMULAS:

EKG Room Requirements:

EKG Rooms = $\frac{\text{EKG tests/week}}{2 \text{ tests per hour} \times 35 \text{ hours per week}}$

Inhalation Cubicle Requirements:

Cubicles = $\frac{\text{Treatments per week}}{2 \text{ treatments per hour} \times 35 \text{ hour per week}}$